

July 2015

Decatur County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 9 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Decatur County economy.¹ These 9 sectors have a total direct output of approximately \$128 million and support 419.0 jobs in Decatur County. Running the model for all 9 sectors simultaneously produces the following results:

Agriculture Contribution in Decatur County

Impact Type ²	Employment	% of Total Employment	Total Value Added ³	% of Gross Regional Product ⁴	Output ⁵	% of Gross Regional Product
Direct Effect	419.0	23%	\$36,580,224	33%	\$127,955,002	117%
Indirect Effect	140.2	8%	\$9,586,825	9%	\$17,007,962	16%
Induced Effect	70.8	4%	\$4,793,070	4%	\$8,379,408	8%
Total Effect	629.9	35%	\$50,960,119	47%	\$153,342,372	140%

As shown in the above table agriculture, food, and food processing supports 629.9 jobs, or 35% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$153 million, roughly 140% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 9 agriculture, food, and food processing sectors is approximately \$51 million, or 47% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 47% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:
https://implan.com/index.php?option=com_content&view=category&id=19

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

⁴ GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

⁵ Output = Intermediate Inputs + Value Added

In the top ten by employment, Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming is the top employer in the agriculture industry with 184.0 employees. This table also shows the amount of jobs that are created by the agriculture industry in Decatur County.

Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	184.0	\$65,839,505
Grain farming	94.2	\$45,541,456
Veterinary services	78.1	\$4,270,093
Wholesale trade.....	44.1	\$8,130,580
All other crop farming.....	41.8	\$7,332,537
Support activities for agriculture and forestry	37.5	\$1,929,071
Real estate.....	13.7	\$2,183,958
Dairy cattle and milk production.....	11.8	\$3,030,254
Hospitals.....	11.5	\$1,267,174
Monetary authorities and depository credit intermediation	8.5	\$1,304,379

The Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming industry directly contributes approximately \$66 million to Decatur County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	184.0	\$65,839,505
Grain farming	94.2	\$45,541,456
Wholesale trade.....	44.1	\$8,130,580
All other crop farming.....	41.8	\$7,332,537
Veterinary services	78.1	\$4,270,093
Dairy cattle and milk production.....	11.8	\$3,030,254
Real estate.....	13.7	\$2,183,958
Owner-occupied dwellings	0.0	\$2,033,910
Support activities for agriculture and forestry	37.5	\$1,929,071
Monetary authorities and depository credit intermediation	8.5	\$1,304,379

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Decatur County's economy.

[illegible]

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.